# CHAPTER 1 INTRODUCTION

#### 1.1 THE STRATEGIC REGIONAL ARTERIAL SYSTEM

The Strategic Regional Arterial (SRA) system is a 1340 mile network of existing roads in Northeastern Illinois, encompassing 146 route segments in Cook, DuPage, Kane, Lake, McHenry and Will Counties (See Table 1.1). As part of the 2010 Transportation System Development Plan adopted by the Chicago Area Transportation Study and the Northeastern Illinois Planning Commission, the system is intended to supplement the existing and proposed expressway facilities by accommodating a significant portion of long-distance, high-volume automobile and commercial vehicle traffic in the region. Many of the roads in the SRA system, such as Illinois Route 83, Illinois Route 64 and U.S. Highway 41, are already on the arterial highway network of the Illinois Department of Transportation and now carry high volumes of long-distance traffic.

Historically, transportation system plans for Northeastern Illinois have focused on major expressway and fixed rail transit facilities. The 2010 Transportation System Development Plan, by including the SRA system, recognizes the need for a comprehensive network of routes one step below the expressway system to handle long-distance regional traffic. Spacing of routes in the SRA system was determined based upon the projected levels of future travel demand within the different parts of the region, ranging from about three miles apart in the most densely developed areas to about eight miles apart in predominantly rural areas. Figure 1.1 shows the designated Strategic Regional Arterial system.

Table 1.1 Strategic Regional Arterial Routes					
ROUTE	FROM	ТО	COUNTY		
127th/130th Street	IL 83	Torrence Avenue	Cook		
1st Avenue/Cumberland	I- <b>9</b> 0	I-55	Cook		
55th Street	I-55	Morgan Drive	Cook		
75th Street	US 34	IL 83	DuPage		
87th Street	IL 50	I-94	Cook		
Archer Avenue	IL 50	Pershing Road	Cook		
Barrington Road	IL 62	US 20	Cook		
Bell Road	IL 83	1L 7	Cook, Will		
Bloomingdale Road	DuPage-Cook Line	iL 64	DuPage		
Charles Road	Lamb Road	IL 120	McHenry		
Church Street	US 20	Jefferson Street	DuPage		
Columbus Drive	Ontario Street	Lake Shore Drive	Cook		
Congress Parkway	Franklin Street	Columbus Drive	Cook		
Cornell Drive	Lake Shore Drive	67th Street	Cook		
County Farm Road	Army Trail Road	IL 38	DuPage		
Dixie Highway/Vincennes	Western Avenue	US 30	Cook		
Dunham Road	IL 25	Kirk Road	Kane		
Euclid Avenue	Roselle Road	Quinten Road	Cook		
Fabyan Parkway	Randall Road	IL 38	DuPage, Kane		
Farnsworth Road	IL 56	US 34	Kane		
Highland Avenue	IL 56	1-88	DuPage		
Hollywood Avenue	US 14 (Ridge)	Lake Shore Drive	Cook		

Table 1.1 (Continued) Strategic Regional Arterial Routes					
ROUTE	FROM	TO	COUNTY		
Huntley/Algonquin Road	IL 47	IL31	McHenry		
L 1	IL 394	Will-Kankakee Line	Will		
IL 7 (159th Street)	IL 53	Will-Cook Line	Will		
IL 19 (Irving Park Rd.)	FAP 426	Lake Shore Drive	Cook		
IL 21 (Milwaukee Ave.)	IL 120	IL 43	Cook, Lake		
IL 22	US 14	US 41	Lake, McHenry		
IL 23	US 14	McHenry-DeKalb Line	McHenry		
IL 25	IL 62	Dunham Road .	Kane		
IL 31	US 12	Randall Connector	McHenry		
IL 38 (Roosevelt Rd.)	Fabyan Parkway	I-294	DuPage, Cook		
IL 43	Lake-Cook Road	US 30	Cook		
IL 47	US 14	Kane-Kendall Line	Kane, McHenry		
IL 47	Wisconsin Line	Raycraft Road	McHenry		
IL 50 (Cicero Ave.)	I-94 (Edens)	I-57	Cook		
IL 53	I-80	Wilmington-Peotone Road	Will		
IL 56 (Butterfield Rd.)	Kirk Road	Highland Avenue	DuPage, Kane		
IL 58	IL 62	McCormick Boulevard	Cook		
IL 59	IL 173	<b>∔5</b> 5	Cook, DuPage, Lake, Will		
IL 60	IL 176	US 41 ·	Lake		
IL 62	IL 31	IL 58 (Golf Road)	Kane, McHenry, Cook		
IL 64 (North Ave.)	Kane-DeKalb Line	LaSalle Drive	DuPage, Kane, Cook		
IL 72	Kane-DeKalb Line	US 20	Kane		
IL 72 (Higgins Rd.)	IL 25	Touhy Avenue	Cook, Kane		
IL 83	Lake-Cook Road	127th Street	Cook, DuPage		
IL 120	I-94 (Tri-State)	US 41	Lake		
IL 120	Charles Road	US 45	Lake, McHenry		
IL 132 (Grand Ave.)	IL 59	1-94	Lake		
IL 137	Peterson Road	Sheridan Road	Lake		
IL 173	McHenry-Boone Line	Wisconsin Line	Lake, McHenry		
IL 176	IL 59	IL 60/83	Lake		
IL 176	IL 23	IL 47	McHenry		
IL 394 (Calumet Expwy.)	FAP 411 (Calumet)	11.1	Will, Cook		
Illinois/Grand Corridor	Columbus Drive	Lake Shore Drive	Cook		
Jefferson Street	Church Road	Army Trail Road	DuPage		
Jefferson/Des Plaines	Roosevelt Road	Ohio/Ontario	Cook		
Corridor					
Joliet-Naperville Road	Naper Boulevard	Weber Road	Will		
Kirk Road	Dunham Road	IL 56	Kane		
Lake Shore Drive	Hollywood Avenue	Cornell Drive	Cook		
Lake-Cook Road	US 12 (Rand Rd.)	US 41	Cook		
Lamb Road	Charles Road	US 14	McHenry		
Larkin Avenue	Weber Road	1-80	Will		

Lake Shore Drive

Roosevelt Road

Cornell Drive

US 41

Cook

Cook

Cook

Cook

Wacker Drive

Morgan Drive

Dempster Street

Lake Shore Drive

LaSalle Drive

McCormick Boulevard

Michigan Avenue

Midway Plaisance

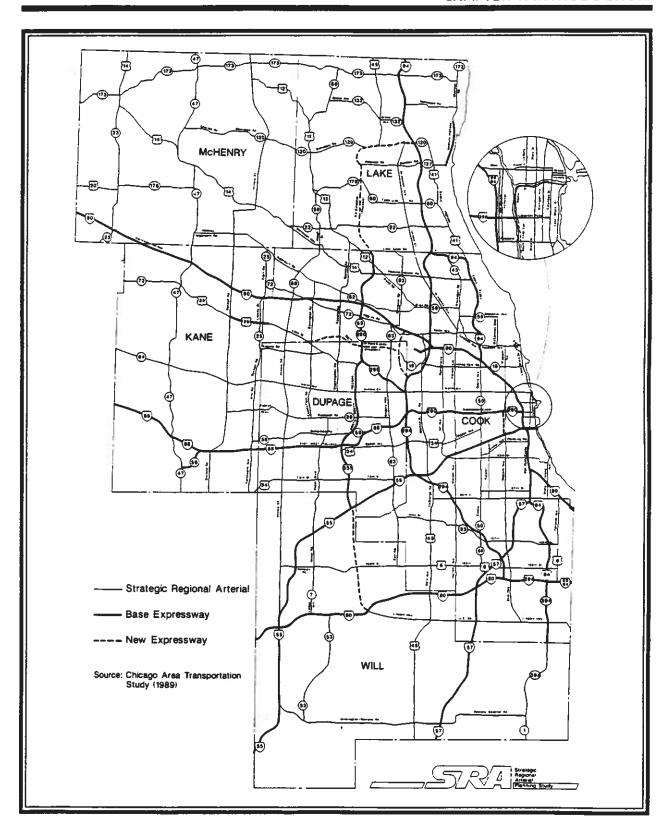


Figure 1.1 The Strategic Regional Arterial System

Table 1.1 (Continued) Strategic Regional Arterial Routes					
ROUTE	FROM	TO	COUNTY		
Morgan Drive	55th Street	Midway Plaisance	Cook		
Naper Boulevard	US 34	Joliet-Naperville Road	DuPage, Will		
Naperville Road	IL 38	US 34	DuPage		
Ohio/Ontario Corridor	1-90/94	Columbus Drive	Cook		
Orchard Road	Randall Road	US 30	Kane		
Palatine/Willow Road	US 14	I-94	Cook		
Peotone Road	<b>+55</b>	IL1	Will		
Pershing Road	Archer Avenue	I-90/94	Cook		
Peterson Road	FAP 432	IL 137	Lake		
Pulaski Road	I-55	US 12/20	Cook		
Quinten Road	Euclid Avenue	US 12	Cook, Lake		
Randall Connector	Randall Road	IL 31	McHenry		
Randall Road	Randall Connector	Orchard Road	Kane, McHenry		
Raycraft Road	IL 47	Charles Road	McHenry		
Renwick Road	IL 59	IL 7	Will		
Roosevelt Road	Lake Shore Drive	I-90/94	Cook		
Roselle Road	Euclid Avenue	Cook-DuPage Line	Cook		
Sheridan Road	IL 173	Amstuts Highway	Lake		
South Loop Connector	Congress Parkway	Cermak Road	Cook		
Stearns Road	Dunham Road	US 20	DuPage, Kane		
Stony Island Avenue	67th Street	I-94	Cook		
Torrence Avenue	US 12/20	I-80/94	Cook		
Touhy Avenue	IL 72	I-94	Cook		
US 6	Cook-Will Line	Torrence Avenue	Cook		
US 12	Wisconsin Line	IL 58 (Golf Road)	McHenry, Cook, Lake		
US 12/20	US 45	Cook-Indiana Line	Cook		
US 14	IL 43	Hollywood Avenue	Cook		
US 14	Wisconsin Line	Palatine Road	McHenry, Cook, Lake		
US 20	IL 72	1-355	DuPage, Kane		
US 20	McHenry-Boone Line	1L 23	McHenry		
US 30 (Lincoln Hwy.)	1-80	Cook-Indiana Line	Cook, Will		
US 30 (Lincoln Hwy.)	IL 47	US 34	Kane		
US 34	US 30	75th Street	DuPage, Kane		
US 34	+355	IL 50	DuPage, Cook		
US 41	McCormick Boulevard	Peterson Road	Cook		
US 41	IL 120	Lake-Cook Road	Lake		
US 45	Wisconsin Line	IL 120	Lake		
US 45	Touhy Avenue	Will-Kankakee Line	Cook, Will		
Wacker Drive	Lake Shore Drive	Congress Parkway	Cook		
Weber Road	Joliet-Naperville Road	Larkin Avenue	Will		
Western Avenue	US 14 (Peterson)	Dixie Highway	Cook		
Yorkhouse Road	I-94 (Tri-State)	Sheridan Road	Lake		
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	n the strategic regional arterials	a>			

the overall system to serve regional traffic.

#### **1.2 PURPOSE OF THE REPORT**

Routes on the SRA system have widely varying characteristics. Existing rights-of-way, roadway features, land use and access differ from route to route, and also may change from one segment of a route to another. The purpose of this report is to identify design features and levels of improvement which are appropriate for the different types of routes and roadway environments in the system -- urban, suburban and rural -- to create a total network capable of handling the high-volume, long distance traffic for which the SRA system was designated. The report will also serve as a comprehensive reference document for planning of short-term and long-term improvements to SRA routes. It provides specific recommended design criteria, which are intended to be applied throughout the system, for each route type. Specific roadway design criteria is identified for each route type to promote safe roadway operations throughout the SRA network. Since a variety of special circumstances could be encountered on the various SRA routes, the report also identifies design features and techniques tailored to particular situations and conditions along these routes. Finally, the report identifies general policy and program recommendations to be considered as the SRA system is implemented.

### **1.3 ORGANIZATION OF THE REPORT**

The SRA Design Concept Report is divided into four major sections:

#### Section 1: General

Chapters 1-3 provide an introduction to the purpose and use of the report, the SRA system and its relationship to Operation Green Light, and the SRA planning process and implementation.

#### Section 2: Recommended Designs and Features

Section 2 presents the application of recommended designs and features as criteria for planning the SRA routes. **Chapters 4-6** each deal with one of the three SRA route types -- urban, suburban and rural -- in terms of recommended design criteria for right-of-way, roadway, intersections and other route components. Recommended cross-sections, typical environmental considerations, and an example of a typical application of the design criteria are also provided in these chapters for each route type.

#### Section 3: Techniques for Special Circumstances

Section 3 describes the use of techniques for special circumstances. **Chapters 7-9** identify design features and techniques which can be applied in special circumstances for each of the three SRA route types to be used in situations where recommended design features are not appropriate.

#### Section 4: Policy Issues

Chapter 10 identifies general policy and program recommendations concerning right-of-way issues; access policies; extra-jurisdictional project participation; traffic management; roadway maintenance; enforcement of parking and loading regulations; and demand management. These recommendations are suggested for consideration by agencies responsible for SRA routes as the system is implemented.

## **1.4 PREPARATION OF THE REPORT**

This report was prepared by an interdisciplinary team of planning and design professionals working in collaboration with project representatives of the Illinois Department of Transportation (IDOT) and the Chicago Area Transportation Study (CATS). An extensive review process involving the CATS SRA Subcommittee and Task Forces, as well as IDOT and CATS staff contributed to the development and refinement of this report.